

**REMARKS**

The present Amendment is in response to the Examiner's Office Action mailed April 24, 2007. Claims 8-10, 15, 16, 18, 24, 26, 33, and 34 are cancelled and new claims 36-38 are added. Claims 1-9, 11-14, 17, 19-23, 25, 27-32, and 35-38 are now pending in view of the above amendments.

Reconsideration of the application is respectfully requested in view of the above amendments to the claims and the following remarks. For the Examiner's convenience and reference, Applicant's remarks are presented in the order in which the corresponding issues were raised in the Office Action.

Please note that the following remarks are not intended to be an exhaustive enumeration of the distinctions between any cited references and the claimed invention. Rather, the distinctions identified and discussed below are presented solely by way of example to illustrate some of the differences between the claimed invention and the cited references. In addition, Applicants request that the Examiner carefully review any references discussed below to ensure that Applicants understanding and discussion of the references, if any, is consistent with the Examiner's understanding.

**I. PRIOR ART REJECTIONS**

**A. Rejection Under 35 U.S.C. § 103**

The Examiner rejects claims 1, 2, 4-6, 8, 11-14, 17-22, 25-28, 30-31 and 35 under 35 U.S.C. § 103 as being unpatentable over *Zimmerman* (U.S. Patent No. 6,580,734) in view of *Nagai et al.* (U.S. Patent No. 5,617,435). The Examiner rejects claim 21 under 35 U.S.C. § 103 as being unpatentable over *Zimmerman* (U.S. Patent No. 6,580,734) in view of *Nagai et al.* (U.S. Patent No. 5,617,435) in view of *Anthon* (U.S. Patent No. 6,125,222). The Examiner rejects claims 3 and 7 under 35 U.S.C. § 103 as being unpatentable over *Zimmerman* (U.S. Patent No. 6,580,734) in view of *Nagai et al.* (U.S. Patent No. 5,617,435) in view of *Tomlinson et al.* (U.S. Publication No. 2003/0035449). The Examiner rejects claims 9, 23, 29 and 32 under 35 U.S.C. § 103 as being unpatentable over *Zimmerman* (U.S. Patent No. 6,580,734) in view of *Nagai et al.* (U.S. Patent No. 5,617,435) in view of *Daiber et al.* (U.S. Publication No. 2003/0012239). The Applicant respectfully requests that the rejections of claims 1-9, 11-14, 17, 19-23, 25, 27-32,

and 35 at least for the reason that the rejections are based on a hindsight reconstruction of the Applicant's claimed invention, the Examiner has not established a reasonable expectation of success, and because the references do not support the reasoning set forth for the proposed combination and modification of the references.

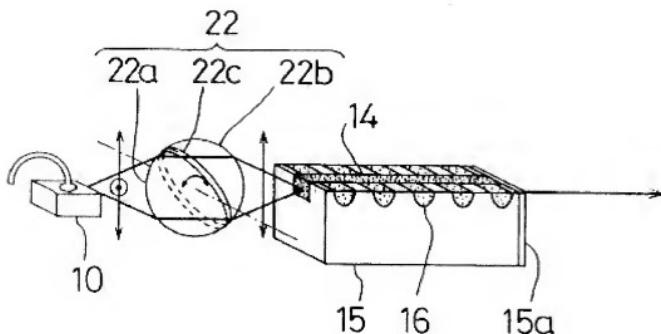
According to the applicable statute, a claimed invention is unpatentable for obviousness if the differences between it and the prior art "are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art." 35 U.S.C. § 103(a) (2005); *Graham v. John Deere Co.*, 383 U.S. 1, 14 (1966); MPEP 2142. Obviousness is a legal question based on underlying factual determinations including: (1) the scope and content of the prior art, including what that prior art teaches explicitly and inherently; (2) the level of ordinary skill in the prior art; (3) the differences between the claimed invention and the prior art; and (4) objective evidence of nonobviousness. *Graham*, 383 U.S. at 17-18; *In re Dembiczaik*, 175 F.3d 994, 998 (Fed. Cir. 1999).

Regarding claims 1, 2, 4-6, 8, 11-14, 17-22, On pages 4 and 5 of the Office Action the Examiner admits that *Zimmerman* does not teach (1) "the control command to be based on a difference between two successive measurements, the amount of adjustment of the effective optical length being proportional to the amount of difference between the two successive measurements", (2) "the optics to be separated from the waveguide", nor (3) the optics to be slightly inclined form a normal of the axis of the optical waveguide as set forth in claim 1. However, the Examiner argues that such differences are obvious in view of the teachings of *Nagai* and common knowledge.

The Applicant respectfully disagrees. *Nagai* relates to a lasing system employing a wavelength-conversion waveguide. See Title. For example, *Nagai* attempts to overcome prior art wavelength-conversion embodiments, such as the embodiments shown in Figure 13, which converts a 860 nm wavelength light into second-harmonic light having a wavelength of 430 nm. To do so, in some embodiments, *Nagai* uses a Brewster plate 12 placed within an external resonant cavity to damage Transverse Electric (TE) modes of the emitted semiconductor laser light to accomplish Transverse Magnetic (TM) oscillation. See col. 7, lines 45-48. The "Brewster plate 12 is tilted so that the angle of incidence of a beam of the emitted semiconductor laser light becomes a Brewster angle (an angle of about 56 [degrees] in the case of BK7 glass)."

In the fourth embodiment cited to by the Examiner, a microspherical lens 22 is used as shown in Figure 4 reproduced below.

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According to the Examiner, it would have been obvious to use the microspherical lens 22 in the embodiment of *Zimmerman* to “enable easier adjustment of the lenses with the diode without moving the waveguide, as well as the ability to replace, or repair, an existing lens without the need to replace the waveguide, as well as to tilt the lens relative to the normal of the waveguide in order to obtain Brewster’s angle, preventing back reflection.” Pages 4-5 of the Office Action.

The Applicant is unable to find support in *Nagai* for the proposed reasoning for using the lens 22 in *Zimmerman*. In particular, the Applicant is unable to find a disclosure in *Nagai* that lens 22 is easily removed, easily adjusted, or prevents back reflection. The Examiner has not established that *Zimmerman* or *Nagai* discuss or provide a reason for tilting a lens to prevent back reflection as suggested by the Examiner. Therefore, it is unclear where the source of such rationale exists, other than in the Applicant’s teachings. In fact, the lens 22 is spherical and it is unclear that it would prevent back reflection as alleged. The light incident on lens 22 appears to be directed along a center point of the sphere as shown in Figure 4 above, and appears that the lens 22 would simply redirect a portion of the light back toward the laser 10.

Moreover, the Examiner has not established that the damage to TE modes of the emitted semiconductor laser light to accomplish TM oscillation caused by the Brewster plate would not be disadvantageous in *Zimmerman*.

Finally, *Nagai* teaches that the “second hemispherical lens 22b has a flat end surface which is coated with a multilayered dielectric film having narrow-band-pass characteristics with respect to semiconductor light with a wavelength of about 860 nm.” Col. 9, lines 19-23. The Examiner has not shown that such a narrow-band-pass characteristic would not detrimentally affect operation of the embodiments of *Zimmerman*. More specifically that *Zimmerman* would continue to function as intended if such a narrow-band-pass filter were introduced. As such, a reasonable expectation of success has not been established the Applicant respectfully requests the rejection be withdrawn for this reason as well.

Analysis supporting a rejection under 35 U.S.C. §103(a) should be made explicit. *KSR Int'l Co. v. Teleflex, Inc.*, No 04-1350 (U.S. Apr. 30, 2007). Moreover, the Patent Office must identify a reason (such as motivation) why a person of ordinary skill in the art would have combined the prior art elements in the manner claimed. *Id.* “[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id. quoting In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006).

Therefore, for at least these reasons the Applicant respectfully requests that the rejections of claims 1, 2, 4-6, 8, 11-14, and 17-22 be withdrawn.

Regarding the rejections of claims 25-28, 30-31, and 35 the Applicant notes that claim 26 has been canceled and assumes that rejection of claim 26 is meant to refer to claim 25. On page 8 of the Office Action the Examiner admits that neither *Zimmerman* nor *Nagai* teach “the process to repeat throughout the life of the laser module.” However, the Examiner alleges that it would have been obvious to do so “to extend the operating period of the feedback loop to function for the duration of the module life in order to insure proper wavelength stabilization throughout all operation usage.” In support, the Examiner further cites to several U.S. patents and a patent application publication under MPEP 2144.03 C.

The Examiner has not, however, cited to a portion of a reference that recognizes that the wavelength fluctuates by age over the life of a laser chip with the need to compensate for such fluctuations, in addition to the need for compensation for changes in ambient temperature and operating temperature. Rather, such teachings are described in the Applicant's specification at least on page 31, line 19 though page 32, line 12. As such, the reasoning set forth is clearly based on hindsight reconstruction of the Applicant's claimed invention. "One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). Therefore, the Applicant respectfully requests that the rejection of claim 25 be withdrawn as based on impermissible hindsight reconstruction of the Applicant's claims.

Moreover, the Examiner has not established that each of the references relied upon supports the proposition, "the obviousness of wavelength stabilization occurring throughout device lifetime" by citing to the relevant portion by column and line number, or figure and reference number, so that the Applicant can determine whether the references supply such support. 37 CFR 1.104 requires that "the particular part relied on must be designated as nearly as practicable." Therefore, the Applicant respectfully requests that the particular portion of each reference be identified as nearly as practicable or the rejection be withdrawn.

Therefore, for at least these reasons the Applicant respectfully requests that the rejection of claims 25-28, 30-31, and 35 be withdrawn.

## **II. NEW CLAIMS**

Claims 36-38 have been added and depend from claim 1. Therefore, claims 36-38 are believed to be allowable at least for the same reasons as claim 1.

**CONCLUSION**

In view of the foregoing, Applicants believe the claims as amended are in allowable form. In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, or which may be overcome by an Examiner's Amendment, the Examiner is requested to contact the undersigned attorney.

Dated this 26<sup>th</sup> day of July, 2007.

Respectfully submitted,

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